REMARKS

This paper is responsive to an Office Action dated June 18, 2004. Prior to this amendment claims 1-22 were pending. Claims 1-22 remain pending.

In Section 2 of the Office Action, objections to the Abstract have been made based upon the use of the word "comprising". In response, the Abstract has been amended to replace to word "comprising" with –including--.

In Section 4 of the Office Action, claims 1-22 have been rejected as unpatentable under 35 U.S.C. 103(a) with respect to Yamazaki et al. ("Yamazaki"; US 6,487,686). The Office Action states that Yamazaki discloses all the elements of the claimed invention, but acknowledges that Yamazaki does not explicitly teach a G.709 system. The Office Action further states that it would have been obvious to one of ordinary skill at the time of the invention to modify Yamazaki to include G.709 protocols. This rejection is traversed as follows.

The four steps of factual inquiry established in *Graham v. John Deere Co.*, and cited in the Office Action, can be addressed using the methodology outlined in MPEP § 2143. This section of the MPEP describes the three requirements needed to establish a *prima facie* case of obviousness.

> First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when

combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck* 947 F.2d 488, 20 USPQ2d, 1438 (Fed. Cir. 1991).

In his Background Section, Yamazaki describes the problem of using even parity FEC decoding to correct an odd number (3 or more) of bit errors. In this scenario, the FEC correction may be improperly performed (col. 2, ln. 27-39). To address this problem, Yamazaki describes devices that switch between states of valid and invalid FEC, which he calls "FEC states" (col. 6, ln. 62-65). More specifically, Yamazaki describes a system where the FEC states of a communicating transmitter and receiver must be the same. Yamazaki explains that if the receiver performs an FEC function when the transmitter is in an invalid FEC state, then the FEC corrections may be invalid (col. 7, ln. 1-10). "Thus, it is necessary to prevent such a mismatch of FEC state between the transmission apparatuses. Additionally, it is necessary to detect such a mismatch..." (col. 7, ln. 17-20). To achieve this goal, the transmitter stores its FEC state information in the overhead of a transmitted message (col. 7, ln. 43-45). The receives derives the transmitter FEC state from the overhead, and compares its FEC state the transmitter FEC state (col. 7, ln. 46-49). If there is a difference in FEC states, "the receiver may generate an alarm..." (col. 7. ln. 52-57). By properly switching FEC states, "it is possible to keep the main signal from being erroneously changed." (col. 8, ln. 5-11).

The invention of claims 1 and 12 describes the use of FEC bytes to correct errors, and the generation of error signals responsive to the detected errors. With respect to the first *prima facie* requirement to

support a case of obviousness, Yamazaki does not supply a suggestion to modify an FEC correction process in such a way as to generate an alarm signal. At col. 5, ln. 1-42, Yamazaki describes a conventional FEC process. However, Yamazaki does not suggest any analysis of the FEC corrections, or the generation of a signal in response to the type of errors that are detected. Further, Yamazaki does not describe a use for any such generated alarm signal. Neither does the Office Action supply a motive for a person skilled in the art to modify Yamazaki in such a manner as to generate alarm signals in response to detecting FEC error corrections.

"The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). In this case, neither the Yamazaki reference nor the Office Action suggests the desirability of the claimed invention.

Further, Yamazaki does not supply a reasonable expectation of success in the claimed invention, the second prong of the *prima facie* obviousness analysis. Although it may appear obvious in hindsight, there is no suggestion that a skilled practitioner could use the Yamazaki reference to build a device that provides alarm signals in response to using FEC bytes to detect errors in a received message.

An obviousness rejection based upon Yamazaki clearly fails in the analysis of third *prima facie* requirement. Yamazaki does not teach or suggest all the elements of the claimed invention. The claimed invention uses FEC bytes to detect errors, and generates an alarm signal in response to the detected errors. Yamazaki, however, detects "FEC states" from examining a message placed in overhead, and determines if
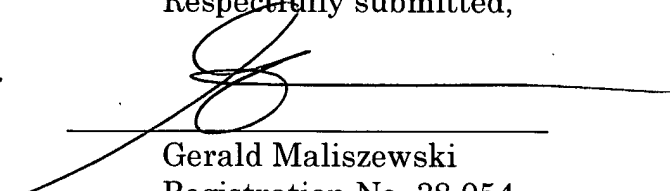
the FEC states of a communicating transmitter and receiver are the same. If the FEC states are different, Yamazaki's receiver generates an alarm. Alternately stated, Yamazaki generates an alarm in response to a mismatch between transmitter and receiver FEC states. As noted above, Yamazaki determines the FEC state from examining an overhead message, not from an analysis of errors that are corrected using the FEC bytes. Ultimately, Yamazaki does not describe the limitations, from claims 1 and 12, of generating of an alarm in response using FEC bytes to detect errors. Rather, Yamazaki describes an alarm generated in response to a comparison of FEC states. Claims 2-11, dependent from claim 1, and claims 13-22, dependent from claim 12, also enjoy the above-mentioned distinctions from the cited prior art. Since Yamazaki does not explicitly describe, or suggest a modification that makes the claimed invention obvious, the Applicant respectfully requests that the rejection be removed.

It is believed that the application is in condition for allowance and reconsideration is earnestly solicited.

Respectfully submitted,

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